File No. 200401779

FINAL ENVIRONMENTAL ASSESSMENT
STATEMENT OF FINDINGS
AND
FINDINGS OF NO SIGNIFICANT IMPACT

(File No. 200401779)

Mr. Bill Hawkins

Application for Deposit of Fill Material for Private Impoundment Structure on an Unnamed Intermittent Tributary of Owl Creek, a tributary to Tennessee River Mile 197.4L, McNairy County, Tennessee

U.S. ARMY CORPS OF ENGINEERS
Nashville District, Regulatory Branch

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APPENDIX CONTENTS

1.0 Proposed Activity

1.1 Background. On 24 September 2004, the applicant, Mr. Bill Hawkins, and his consultant, Scott Engineering Company, submitted a joint application to the Corps of Engineers (CE) pursuant to Section 404 of the Clean Water Act (CWA) for a Department of the Army (DA) permit and to the Tennessee Valley Authority (TVA) pursuant to Section 26a of the TVA Act. In addition, an application was submitted to the state of Tennessee, Department of Environment and Conservation (TDEC) for a Section 401 Water Quality Certification.

The proposed action is the discharge of fill material below the plane of ordinary high water for the construction of an earthen impoundment structure across an above headwaters intermittent tributary to create a private-use reservoir. The proposed action is located on an unnamed intermittent tributary of Owl Creek, a tributary Tennessee River Mile 197.4L, in McNairy County, Tennessee. Several onsite inspections of the site have been made by TDEC and this office for stream determination from 14 October 2004 to 1 June 2005. An interagency onsite meeting was held on 23 February 2005. See Appendix A for Memorandum for Records (MFR) with project photos. Following the onsite inspections, it was determined that the proposed lake would replace about 5,900 feet of existing intermittent channel to be used for fishing by the applicant. The scope of work is the impoundment structure, the lake, and proposed mitigation.

The work is further described in Public Notice 04-70, dated 22 December 2004 (See Appendix B).

1.2 Decision Required. Section 301 of the CWA prohibits the discharge of dredged or fill material into waters of the U.S. unless authorized by the DA pursuant to Section 404 of the same Act. The unnamed tributary of Owl Creek is waters of the U.S. as defined by 33 CFR Part 328. A DA permit is required; therefore, the CE must decide on either issuance of a permit for the proposal, issuance of a permit with conditions, or denial of the permit.

1.3 Other Approvals Required. Other federal, state, and local approvals may be required for the proposed work. On 18 July 2006, TDEC issued a conditional water quality certification pursuant to Section 401(a)(1) of the CWA, that applicable water quality standards would not be violated by the work (See Appendix C). TDEC required the applicant to submit extensive flow data and water quality data for the existing stream and projected stream water quality impacts from the work prior to issuance the certification (See Appendix C for water quality data). In addition, approval from TVA is required pursuant to Section 26a of the TVA Act. TVA advised this office by email dated 31 August 2006, that their technical review is complete and they are ready to begin their FONSI process upon receipt of this Environmental Assessment. Also, TVA provided some information concerning the Tennessee Classification of Dams and Tennessee Safe Dams information (See Appendix D).

2.0 Public Involvement Process. On 22 December 2004, Public Notice 04-70 (Appendix B) was issued to advertise the proposed work. All written responses are included in Appendix E. Summaries of the responses are as follows:

General Public Comments.

One comment letter was received from two residents in the community, Ms Mary Schallhorn and daughter, Ms. Rita Jones. They expressed their concerns over the noise from all terrain vehicles, damage to adjoining wooded areas, concern of property being a hunting preserve and open to the public, and impact to the streams on their property.

Another comment letter was received from Mr. Jeff Duke, Environmental Consultant, responding that previous permit applications had to demonstrate less environmental damaging alternatives through an alternatives analysis.

There were no requests for a public hearing.

Agency Comments.

By letter dated 27 January 2005, the **US Fish and Wildlife Service** (USFWS) stated that endangered species collection records do not indicate that federally listed or proposed endangered or threatened species occur within the impact area of the project. They believe that the requirements of Section 7 of the Endangered Species Act of 1973 are fulfilled. However, USFWS is concerned with the proposed mitigation measures and the lack of detail in the proposed stream mitigation plan. They listed six concerns with the inadequate mitigation plan. USFWS recommended the work be placed in abeyance until the applicant provides the agencies a detailed mitigation plan.

By letter dated 20 January 2005, the **Tennessee Wildlife Resources Agency** (TWRA) stated that they request the permit be held in abeyance until an adequate detailed mitigation plan is received for the proposed work.

The **Tennessee Historical Commission** (THC) responded by letter dated 28 December 2004, requesting an archaeological survey be performed on the area of potential effect in order for them to complete their review of this undertaking.

Comment Analysis:

General Public Comments: The applicant provided a response to Ms. Schallhorn's and Ms. Jones' comments by letter dated 15 August 2006 (See Appendix F). The applicant indicated that the property will be used only for private use (family and friends), all terrain vehicle use would remain as the same as now, all work would be performed on his private property (no disturbance to their adjoining wooded areas and/or streams), and it would only be used for hunting as it is presently used. The applicant also provided a response to Mr. Duke's comments by letter dated 16 August 2005 (See Appendix F). The letter indicated that the regulatory agencies are reviewing

the alternatives to the proposal and coordinating a mitigation plan that would offset the impacts to the intermittent stream.

Agency Comments:

The applicant provided a mitigation plan for the proposed stream impacts in July 2005, following the interagency onsite meeting. This mitigation plan was coordinated with all attending agencies. However, revisions and additional mitigation measures were required. The applicant then provided a revised mitigation plan on 28 October 2005 (See Appendix G). This mitigation plan was coordinated with the commenting agencies and regulatory agencies. USFWS provided an email dated 17 November 2005, stating that the proposed mitigation appears to be adequate to compensate for the anticipated resource impacts and therefore, they no longer oppose the issuance of the permit for the proposed impoundment (See Appendix H). TWRA also provided an email dated 18 November 2005, stating they do not have a problem with the proposed work with the implementation of the mitigation plan (See Appendix H). TDEC issued the water quality certification based on this revised mitigation plan (See Appendix C). Therefore, it is recommended that the Mitigation Plan, dated 28 October 2005, is incorporated into the DA permit, if issued.

The applicant had an archaeological survey prepared for the proposed project site by Panamerican Consultants, Inc. A report titled *"Cultural Resources Survey of the McNairy County Phase I Project"* was submitted to this office for review (See Appendix I). This survey report was coordinated with THC by letter on 18 February 2005, with a determination that no historical properties listed on or eligible for listing on the National Register of Historic Places (NRHP) will be affected by this project. THC responded by letter dated 9 March 2005, stating that they concur that the project area contains no archaeological resources eligible for listing in the NRHP (See Appendix I).

3.0 Environmental and Public Interest Factors Considered

3.1 Introduction. 33 CFR 320.4(a) states the decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. All factors that may be relevant to the proposal must be considered. Public Notice 04-70 listed factors that may be relevant to the proposal. The following sections show which factors that are relevant in this proposal, and if relevant, provide a concise description of the impacts.

3.2 Physical/Chemical Characteristics and Anticipated Changes. The relevant blocks are checked with a description of the impacts.

(x) substrate. The proposed footprint of the impoundment structure would displace a 265' long section of the intermittent channel with culverts and earth material. According to the

applicant, the impoundment structure would impound enough water to create a 47-acre lake. Length of stream covered by water would be approximately 5,900 feet. According to the applicant, with the exception of the footprint of the structure, no earth moving activities would occur in the stream channel.

(x) suspended particulates, turbidity. The proposed structure would be constructed during low flow times of the year. Short-term increases in turbidity would be expected during construction. However, with the application of good erosion control measures during construction, including the use of silt booms, effects from turbidity should be minimal. Erosion control measures may be required through permit conditions. It is recommended to condition the DA permit to maintain erosion control measures throughout the construction of project and to perform the work during low flow conditions of the stream (such as summer and/or fall of the year).

(x) currents, circulation, drainage patterns, base flow. The proposed structure would change the base flow of the stream by impounding the stream flow on its upstream side. TDEC conditioned the water quality certification that during construction and before filling, all flow from the creek shall be released downstream and during regular operation, outflow from the impoundment shall be maintained to equal the normal or ordinary base flow of the creek (See Appendix C). Thus, maintaining a base flow of the creek during and after construction of the impoundment structure.

(x) water quality (temperature, color, odor, nutrients). The proposed work would change the characteristics of the stream to a lake on one side of the impoundment structure and to a culvert in the footprint of the structure. The impounded water would likely stratify temperatures in the summer months with cool water on the bottom and warmer water on top. Existing trees around the lake should provide good shade to cool the lake to keep top temperatures from warming too much. The applicant has designed the placement of a pipe culvert at the middle of the lake to allow the cooler water to pass through to the other side. The applicant would be required to perform routine maintenance on the pipe to keep it open from debris clogs. Upland influences would not likely change form the construction of the structure since the applicant owns the 900 acres surrounding the structure. A water quality certification was issued for the proposed work by TDEC on 18 July 2006 with conditions to minimize the water quality impacts during and after construction of the impoundment structure. The applicant's proposed work would incorporate an erosion control plan to minimize erosion and sedimentation, in accordance with the conditions of the certification conditions.

(x) flood control functions. According the application, the drainpipe system for the proposed impoundment structure was designed by the engineering firm of Scott Engineering Company, in accordance with appropriate storage and flood information and calculations. According to the applicant, the lake would at no time be impounded on any other property than his own private property, including during flood events. Floodwaters would overtop the impoundment structure and discharge through the spillway downstream as with normal flood events.

( ) storm, wave and erosion buffers. No issues.

3.3 Biological Characteristics and Anticipated Changes. The relevant blocks are checked with a description of the impacts.

(x) special aquatic sites (wetlands, mudflats, pool and riffle areas, vegetated shallows, sanctuaries and refuges, as defined in 40 CFR 230.40-45). According to the application and review of available information, no wetlands would be filled or impounded by water with the proposed action. The applicant's proposed mitigation measures provide for creation of riffle and pool complexes throughout the 4500' of stream restoration/enhancement activities.

(x) habitat for fish and aquatic organisms. According to the USFWS, no habitat for threatened or endangered aquatic species would be affected by the proposed action. Further, the stream channel to be impounded is intermittent and mostly dries up during the low flow periods of the year. Thus, not providing enough flow for fish habitat year round. However, during the wetter months, it does provide flow for smaller fish habitat. Some microorganism may be present within the gravelly channel bottom. While the fish habitat would change from the stream characteristics, the lake would create a water habitat for fish species behind the impoundment structure. In dry summer months, the impounded water would provide year round habitat for a variety of aquatic species. The applicant's mitigation plan would restore and enhance a total of 4500' of intermittent streams throughout the applicant's property that have been previously straightened, ditched, and farmed up to the top of the banks (See Appendix G). The proposed mitigation measures would ultimately provide enhanced habitat for fish and aquatic organisms throughout the 4500' of streams.

(x) wildlife habitat. The proposed project would impound an additional 47-acres that is mostly forested areas and agricultural areas, that is used by wildlife. However, this area is very remote and is likely good habitat for wildlife. However, the applicant's other remaining 850-acres is also forested and/or agricultural uses. The proposed work may enhance wildlife by providing a year round source of water. The temporary presence of construction workers and equipment would disturb wildlife in the vicinity of the project. After construction is completed, wildlife would likely return to the area. The applicant's proposed mitigation plan would offset the wildlife habitat loss by restoring 17.3-acres around other intermittent streams located on the applicant's property. These areas had been previously farmed up to the top of the stream banks that had removed most vegetation. The mitigation plan involves replanting these areas, for a minimum 50' wide buffer, with native tree and shrub species. Thus, this would provide an additional wildlife habitat areas along these streams.

(x) endangered or threatened species. According to the USFWS, they stated that endangered species collection records do not indicate that federally listed or proposed

endangered or threatened species occur within the impact area of the project. They believe that the requirements of Section 7 of the Endangered Species Act of 1973 are fulfilled.

(x) biological availability of possible contaminants in dredged or fill material. Only clean materials, free of possible contaminates would be used for the proposed impoundment structure.

3.4 Human Use Characteristics and Anticipated Impacts. The relevant blocks are checked with a description of the impacts.

( ) existing and potential water supplies; water conservation. No issues.

(x) water-related recreation. According to the applicant, the creation of a 47-acre lake would promote small craft recreation and swimming, as well as bank and boat fishing.

(x) aesthetics. From the applicant's point of view, the proposed lake would be very appealing and a benefit to his property as a place to enjoy fishing, nature, and hiking. The applicant's mitigation plan would provide enhanced aesthetic values to the 4500' of stream to be enhanced/restored by allowing these areas to return to a natural state, as compared to the cleared areas for agricultural use.

( ) navigation. No issues.

(x) safety. The Tennessee Safe Dams Section would regulate the proposed construction of the impoundment structure under the state's safe dam's compliance program, if the dam were public. This is a private small dam that is exempt from the program, according to the state. Also, TVA provided information concerning the project stated "the dam proposed by Mr. Hawkins would be classified as a small dam because of the height and storage. Unless there is an expected loss of life, TVA expects the dam to be classified as low based on downstream property damage" (See Appendix D).

( ) traffic/transportation patterns. No issues.

( ) energy consumption or generation. No issues.

(x) air quality. It has been determined that the proposed activities would not exceed de minimus levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR part 93.153.

(x) noise. During construction, this area would experience increases in noise levels from construction equipment. Work would occur during the daylight hours. Once construction is finished, noise levels should return to normal.

(x) historic properties and cultural values. An archaeological survey report titled *"Cultural Resources Survey of the McNairy County Phase I Project"* was submitted to this office for review (See Appendix I). This survey report was coordinated with THC by letter on 18 February 2005, with a determination that no historical properties listed on or eligible for listing on the National Register of Historic Places (NRHP) will be affected by this project. THC responded by letter dated 9 March 2005, stating that they concur that the project area contains no archaeological resources eligible for listing in the NRHP (See Appendix I).

(x) land use classification. All work would be performed on the applicant's privately-owned property.

(x) conservation. The applicant would establish a 50' wide buffer around the mitigation areas, that would provide 17.3-acres for conservation. The applicant indicated they would protect these mitigation areas in perpetuity by a Conservation Easement (See Appendix G).

(x) economics. During construction, the economic welfare of this immediate area would be improved by the presence of workers living and spending money in the area. Also, the contractor is expected to benefit economically from the construction of the project. Further, the 47 acre lake addition would increase property values for the applicant.

(x) environmental justice. The project has been reviewed with respect to environmental justice and it has been determined that there is no disproportionate concentration of minority or low-income persons within the vicinity of the project site. The proposed impoundment structure would be constructed on private property that is surrounded by over 900-acres of remote lands owned by the applicant. There would be no residential relocations caused by the proposed action.

(x) consideration of private property. Consideration has been given to the applicant to construct the private lake on his private property. However, effects of the project have been considered on the adjacent property owners.

( ) mineral needs. No issues.

(x) floodplain values. The proposed site is located within an intermittent channel to Owl Creek, where there are no floodplain areas of consideration.

( ) food and fiber production. No issues.

3.5 Cumulative and Secondary Impacts. An important aspect of environmental review is consideration of how actions by others have and will affect the same resources. Cumulative environmental effects for the proposed facility were assessed in accordance with guidance provided by the President's Council on Environmental Quality (EPA 315-R-99-002, May 1999). This guidance provides a process for identifying and evaluating cumulative effects in National

Environmental Policy Act. For purposes of cumulative impact assessment, a subjective five-year focus period for reasonably foreseeable future actions includes:

- Construction of other impoundments structures on this tributary
- Future development of the lands that surround the 47-acre lake
- Adjacent existing and/or proposed subdivisions performing similar works

Future associated work that may be proposed in the vicinity determining the magnitude and significance of effects; modifying to avoid, minimize or mitigating effects, and planning for monitoring and adaptive management would have to be addressed on a case-by-case basis. Overall, while there would be permanent impacts on the tract; given the relatively small area of impact and the relatively low physical and biological functions present in the impact area, the proposal is not anticipated to have a cumulative or secondary effect upon the existing environment and the sustainability of important resources would not be adversely affected.

4.0 Alternatives.

4.1 Introduction. This section discusses alternatives given detailed consideration as required by 33 CFR 320.4(a)(2) and 40 CFR 230.10. The relevant environmental issues identified in Chapter 3.0 were used to formulate the alternatives.

4.2 Description of Alternatives. Only reasonable alternatives have been considered in detail, as specified in 40 CFR 1508.14(a).

a. No Action. No action may be brought about by (1) the applicant electing to modify the proposal to eliminate work under the jurisdiction of the Corps or (2) Corps denial of the permit. The proposed work would not be performed and the applicant's need would not be met.

b. The Proposed Action. The proposed work consists of the construction of an impoundment structure that would displace a 5900' section of intermittent channel to form a 47-acre lake as described in Public Notice 04-70. A copy of the notice is located in Appendix C.

c. The Proposed Action with Mitigation Measures. The proposed mitigation plan has been revised since the public notice to satisfy agencies' concerns and provide adequate compensatory mitigation to offset the impacts to the resources. The applicant provided a revised mitigation plan, dated 28 October 2005, that was determined to be adequate (See Appendix G).

d. Applicant's Proposed Action with Special Conditions. This alternative would be composed of the applicant's proposal with the inclusion of additional special conditions (described in Section 5.5) that would minimize and mitigate unavoidable adverse impacts.

4.3 Comparison of Alternatives.

a. No Action. With this alternative, the applicant would not displace and/or impound 5900' of intermittent stream channel. The applicant would continue to utilize his lands in the present state; however without the recreational benefits of the lake. Other impacts and benefits associated with the proposed action would not occur. No action does not meet the needs of the applicant.

b. The Proposed Action. With this alternative, the applicant would perform the proposed work. Approximately 5900' of the unnamed tributary would be covered with a pipe culvert and/or impounded for a lake. No properties listed in or eligible for the National Register of Historic Places would be affected. No federally-protected species would be adversely impacted. All issues have been addressed raised by adjacent property owners or other agencies during the public interest review.

c. The Proposed Action with Mitigation Measures. If appropriate mitigation measures discussed in this document are implemented, impacts to the environment could be minimized. In addition, the applicant provided a Mitigation Plan that would provide compensatory mitigation that would adequately offset the impacts to the resources (See Appendix G).

d. Applicant's Proposal with Special Conditions. The impact of this proposal would be similar to the description in b. above. The addition of recommended special permit conditions would minimize adverse impacts to the environment. This alternative would have the least adverse impacts of the options under consideration.

5.0 Findings

5.1 Consideration of Public Comments. Comments received from the general public or adjacent property owners have been considered and addressed throughout this document. **There were no requests for public hearings.** USFWS' and TWRA's comments concerning adequate mitigation for the project have been resolved.

5.2 Clean Air Act General Conformity Rule Review. The proposal has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the CAA, and it has been determined that the activities proposed under this permit will not exceed de minimus levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the CE continuing program responsibility, and cannot be practicably controlled by the CE, and, for these reasons, a conformity determination is not required for a permit.

5.3 Water Quality Certification. In accordance with Section 401(a)(1) of the CWA, TDEC issued a conditional water quality certification for the work dated 18 July 2006 (See

Appendix C). The certification indicated that applicable water quality standards would not be violated by the work.

5.4 Section 404 (b)(1) Determination. The purpose of Section 404(b)(1) of the CWA is to restore and maintain the chemical, physical, and biological integrity of the waters of the US through the control of discharges of fill material, as published in 40 CFR 230. Section 230.10 requires that the discharge of fill material into waters of the US associated with the proposed work meet certain restrictions in order to be authorized: (a) there are no other practicable alternatives to the proposal that would have less adverse impacts on the aquatic environment, (b) the discharge would not adversely impact water quality, violate state water quality or toxic effluent standards, or jeopardize the continued existence of a threatened or endangered species as identified under the ESA, (c) the discharge would not cause or contribute to the significant degradation of waters of the US, and (d) the project is minimize to the extent possible the adverse impacts on the aquatic environment. Based on the probable impacts addressed above, compliance with the restrictions, and information concerning the fill materials to be used, the proposed work complies with the Guidelines and the intent of Section 404(b)(1) of the CWA. See Appendix J.

5.5 Recommended Special Permit Conditions. The following recommended special permit conditions, when applicable, are necessary to comply with federal law, while affording appropriate and practicable environmental protection.

1. The work must be in accordance with any plans attached to the permit. You must have a copy of this permit available on the site and ensure that all contractors are aware of its conditions and abide by them. *Justification: Recommended at 33 CFR 325, Appendix A.*

2. The structure shall be constructed during low flow periods of the year (i.e., July through November). A silt containment boom, or equivalent, shall be placed between the construction work and the downstream end of the work until completion. It is your responsibility to perform routine maintenance on the structure/culverts to keep them clean from debris and open. *Justification: To minimize turbidity and water quality impacts.*

3. You must contact this office upon commencement of the impoundment structure so that an onsite inspection can be made during the construction. *Justification: To perform compliance inspection of the project.*

4. Copies of photographs taken during the middle stage of construction and after the project is finished shall be forwarded to this office by mail or email, Attn: Amy Robinson. *Justification: For a record of the progress.*

5. The attached Mitigation Plan, dated 28 October 2005, must be carried out in its entirety for the proposed project. You must contact this office upon completion of the mitigation measures in order for an onsite inspection to be made. *Justification: To ensure mitigation measures are carried out as proposed.*

5.6 Findings of No Significant Impact (FONSI). Based on a full consideration of the EA, information obtained from cooperating federal/state agencies, and comments received from the interested public, I have concluded that issuance or denial of the requested permit would not constitute a major federal action that would significantly affect the quality of the human environment. This constitutes a FONSI; therefore, the preparation of an Environmental Impact Statement is not required. This FONSI was prepared in accordance with paragraph 7a, Appendix B, 33 CFR 325, February 3, 1988.

5.7 Public Interest Determination. The information in this document indicates that the proposed action would meet the recreational and economic needs of the applicant, while providing a diverse habitat with the construction of 47-acre lake for aquatic and wildlife habitat in the applicant's 900-acre homesite. The proposed project would not affect any federally-protected species, or properties eligible for or listed in the National Register of Historic Places. No residential relocations would be required. The applicant proposes mitigation measures that provide compensatory mitigation to offset the impacts to the resources. These mitigation measures would restore/enhance 4500' of other intermittent streams on the applicant's property and provide 17.3-acres of additional habitat that would be protected with a conservation easement. Issuance of a permit for the proposed action provides benefits to the applicant and meets his needs.

I have weighed the potential benefits that may be accrued as a result of the proposed action against its reasonably foreseeable detrimental effects and conclude that permit issuance would not be contrary to the public interest. The general conditions contained within the DA permit together with incorporating the recommended special conditions adequately address the environmental concerns identified in this document.

FOR THE COMMANDER:

9/6/06
Date

Bradley N. Bishop
Chief, Western Regulatory Section
Operations Division